

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 1-14 are pending; Claim 12 is amended; and no claims are newly added or canceled herewith. It is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action, Claim 12 was objected to; Claims 1-14 were rejected under 35 U.S.C. § 102(a) as anticipated by Doi et al. (U.S. Pat. Pub. No. 2002/0172403, hereafter Doi '403); and Claims 1-3, 6, and 12-14 were alternatively rejected under 35 U.S.C. § 103(a) as unpatentable over Doi et al. (U.S. Pat. No. 5,289,374, hereafter Doi '374) and Ema et al. (U.S. Pat. No. 5,779,634, hereafter Ema).

With regard to the objection to Claim 12, Claim 12 has been amended herewith to remove the noted informality. It is therefore respectfully requested that this objection be withdrawn.

Regarding the rejection of Claims 1-14 under 35 U.S.C. § 102(e) as anticipated by Doi '403, this rejection is respectfully traversed. Applicants have filed herewith a Declaration Under 37 C.F.R. § 1.131, clarifying that the subject matter common to the Doi '403 application and the present application is not by another, as Kunio Doi and Masahito Aoyama (who are named as inventors of the present invention, together with Qiang Li) invented the subject matter in common. It is therefore respectfully requested that this rejection be withdrawn.

With regard to the alternative rejection of Claims 1-3, 6, and 12-14 as unpatentable over Doi '374 in view of Ema, that rejection is also traversed.

Claim 1 recites a method for determining if a pulmonary nodule is malignant, including a step of evaluating whether the pulmonary nodule is malignant based on an

examination of a total of seven of the patient or image features. As described in the specification at page 12, paragraph [0058], the inventors of the present invention examined combinations of features by an iterative procedure, with the number of selected features depending on an F-value threshold. The optimal number of features was determined to be seven, based on the Applicants' inventive efforts.

Doi '374 relates to a method and system for an analysis of false positives produced by an automated scheme for detecting lung nodules in digital chest radiographs. Doi '374 describes that various parameter values are calculated, such as edge gradient standard deviations, degree of circularity, etc.¹ However, Doi '374 fails to disclose or suggest using seven patient or image features.

The outstanding Office Action attempts to rely upon Ema to remedy this deficiency of Doi '374. Ema relates to a medical information processing system for supporting diagnosis. Ema describes, for example, in Table 10, storing a patient ID number, patient name, date of birth, and sex, as well as other information.² However, Ema does not disclose or suggest using patient age or gender as a factor in evaluating whether a pulmonary module is malignant. Moreover, Ema does not disclose or suggest in any way using a patient's age or sex as part of an evaluation process. Rather, this information is simply stored in Ema for matching with other data within the image processing process. Additionally, Ema does not disclose or suggest using seven patient or image features.

Accordingly, as neither Doi '374 nor Ema, either alone or in combination, discloses the features recited in Claim 1, it is respectfully submitted that Claim 1 patentably distinguishes over the applied combination of Doi '374 and Ema. Likewise, it is respectfully submitted that dependent Claims 2-12 patentably distinguish over Doi '374 and Ema for the

¹ Doi '374, col. 5, lines 25-27.

² Ema, col. 15, lines 10-40.

reasons above-noted with regard to Claim 1. It is therefore respectfully requested that this rejection be withdrawn.

Moreover, it is respectfully submitted that there is no basis in the teachings of either Doi '374 or Ema to support the applied combination. Certainly, the Office Action fails to cite to any specific teachings within either reference to support the applied combination. It is therefore respectfully submitted that the combination of Doi '374 and Ema is the result of hindsight reconstruction, and is improper.

Consequently, in view of the foregoing discussion and present amendments, it is respectfully submitted that this application is in condition for allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

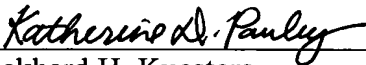
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